

**Project Proposal to the U.S. Army Corps of Engineers**  
**CALFED Levee System Integrity Program**

February 2006

RD 2086

**Project Name:** Canal Ranch PL-99 Levee Rehabilitation Project

**Purpose:** The purpose of the project is to increase the level of protection of the lands and inhabitants of Canal Ranch, San Joaquin County, to an acceptable standard.

**Location:** The project is located on Canal Ranch, San Joaquin County at the west end of Peltier Road. (Plate 1). Canal Ranch is protected on three sides by levees along Hog Slough, South Fork Mokelumne River, and Bearer Slough. These 7.5 miles of non-Project levees protect 3,000 acres. (Plate 2).

**Problems:** Canal Ranch's current levee system has been rehabilitated and continues to be maintained at the FEMA Short-term Hazard Mitigation Plan minimum standards. These standards are only geometric in nature and do not specify the actual level of protection based on levee stability. The 2000 CALFED Levee Rehabilitation Study estimated that it would cost up to \$21.7 million to rehabilitate Canal Ranch's levees to the PL-99 standards. Without financial assistance, the District cannot undertake this size project.

**Opportunities:** Although the upper end of CALFED's rehabilitation cost was \$21.7 million, the District completed an extensive geotechnical study of the levees several years ago. In addition, the District has recently completed a detailed topographic survey of its levees. This should enable a cost savings in design. Also, the District has recently completed a soils analysis and has located adequate borrow material within the District boundaries. Therefore, this project should cost much less than previously calculated.

**Project Description:** The project would consist of some additional exploratory geotechnical evaluation to determine existing levels of stability and provide design criteria for improvement of the levee system to meet the PL-99 requirements. The second phase of the project would be to design and construct these improvements to rehabilitate all 7.5 miles of the Reclamation District No. 2086 levee to the PL-99 standards. Canal Ranch is located on the eastern edge of the Sacramento San Joaquin Delta. The District recently completed a soils survey and has located suitable borrow material within the District boundaries.

**Statement of Willingness and Ability to Cost Share:** Reclamation District No. 2086 has been an active participant in the Delta Levees Subventions Program for many years. In this regard, the District is comfortable with cost sharing with a governmental entity. However, the District's resources are limited and will be limited in what it can contribute.

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### Scoping & Screening Information:

- In your opinion, what is the urgency for your proposed project? Is there an imminent threat to life, property, critical habitat, or other prominent resource?

*Although the Canal Ranch levee meets the minimum short-term standards of the Hazard Mitigation Plan, it does not meet any established level of protection. The urgency in the project consists of the fact that the 1990 census determined that 103 people live on Canal Ranch.*

- Would there be a change in the magnitude, frequency, or duration of flood flows in other areas of the levee system as a result of the potential project?

*At this time, it is not known what level of protection the levees of Canal Ranch provide. This project would determine that level and increase the level in accordance with PL-99 standards.*

- What would the proposed project do to address flooding, ecosystem, water supply and quality, and other problems and needs locally and regionally?

*As stated above, the project would provide additional benefits to the inhabitants and habitat located within the boundaries of Reclamation District No. 2086. The west levee of Canal Ranch, along the South Fork Mokelumne River provides conveyance benefits to water moving across the Delta from the Delta Cross Channel, to the north, to the intake facilities of the CVP and SWP to the south. Canal Ranch also provides extensive habitat for the Sandhill Crane and other migratory birds.*

- Are there non-structural or other ways to address flooding, ecosystem, water supply and quality, and other problems in the potential project area; and if so, what are they?

*At this time, there are no non-structural alternatives to address the increased level of protection that the levees provide.*

- Who and/or what would benefit from the potential project?

*The Project would benefit the lands within Canal Ranch and any lands east of their boundary protected by their levees. These lands provide mostly agricultural benefits, which include row crops. The ecosystems who benefit by preserving growth and by migratory birds. The west levee provide conveyance for the SWP and CVP.*

- What is the likely Federal, State and local agency support?

*It is anticipated that State support would come from the Department of Water Resources Delta Levee Subventions Program. Local support would also come from the landowners and trustees who represent Reclamation District No. 2086, Canal Ranch. It is unknown at this time whether agencies associated with exportation of water from the Delta, which rely on the*

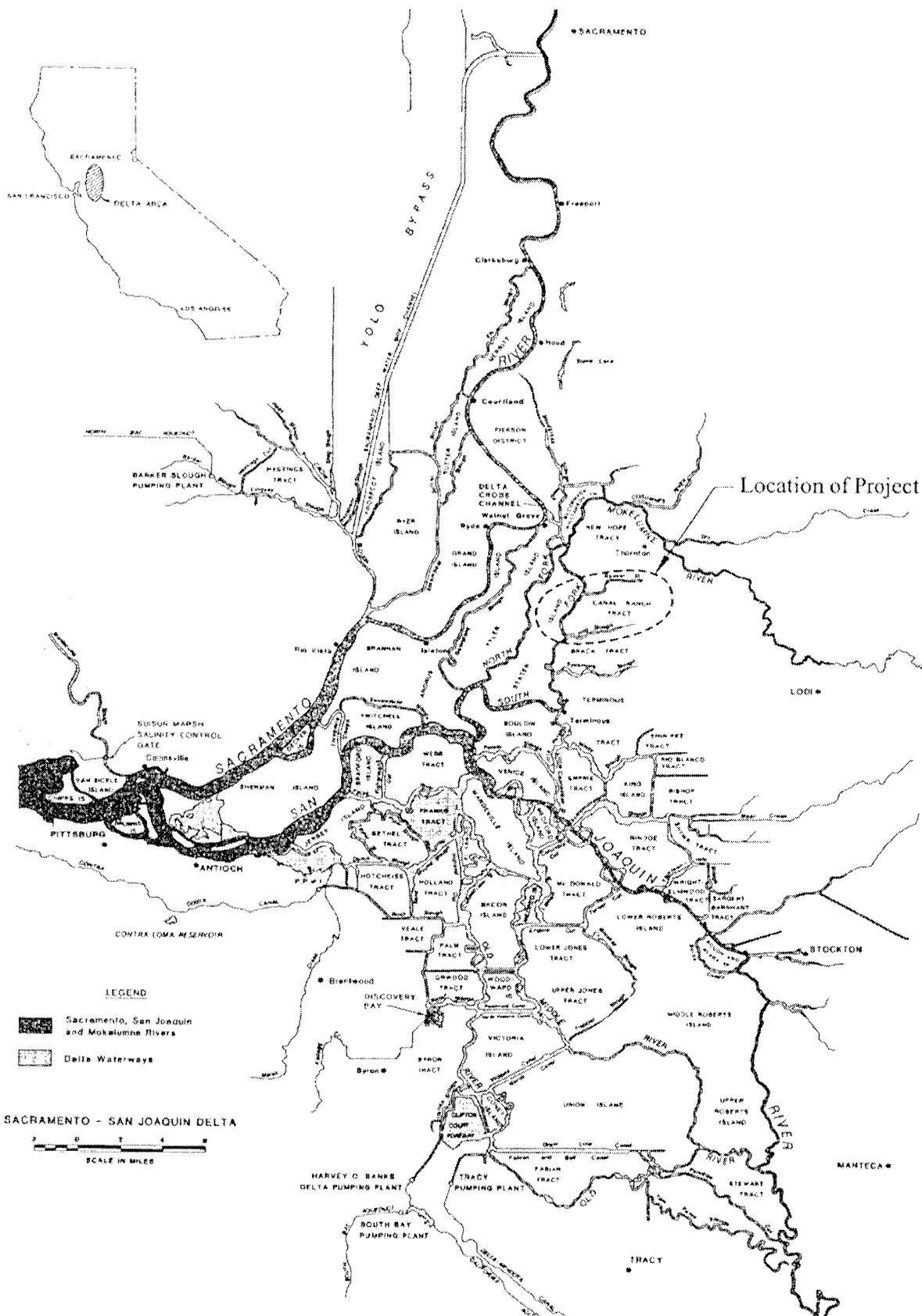
*west levee of Canal Ranch to convey fresh Sacramento River water across the Delta to the pumping facilities, would support this work.*

- Are there any known challenges or obstacles that may delay rapid development and implementation of your potential project?

*At this time, there are no known challenges or obstacles that would delay rapid development and implementation of the project. At this time, it is unknown what their local cost share would be; and therefore, there may be some issues on the timing of their cost share participation.*

- Is your agency ready, willing, and able to serve as a non-Federal sponsor for this potential project, and able to provide required cost-sharing and other assurances?

*Reclamation District No. 2086 is willing to serve as the non-Federal sponsor for any potential projects on the island that would reduce the flood risk and protect the property and inhabitants of Canal Ranch.*



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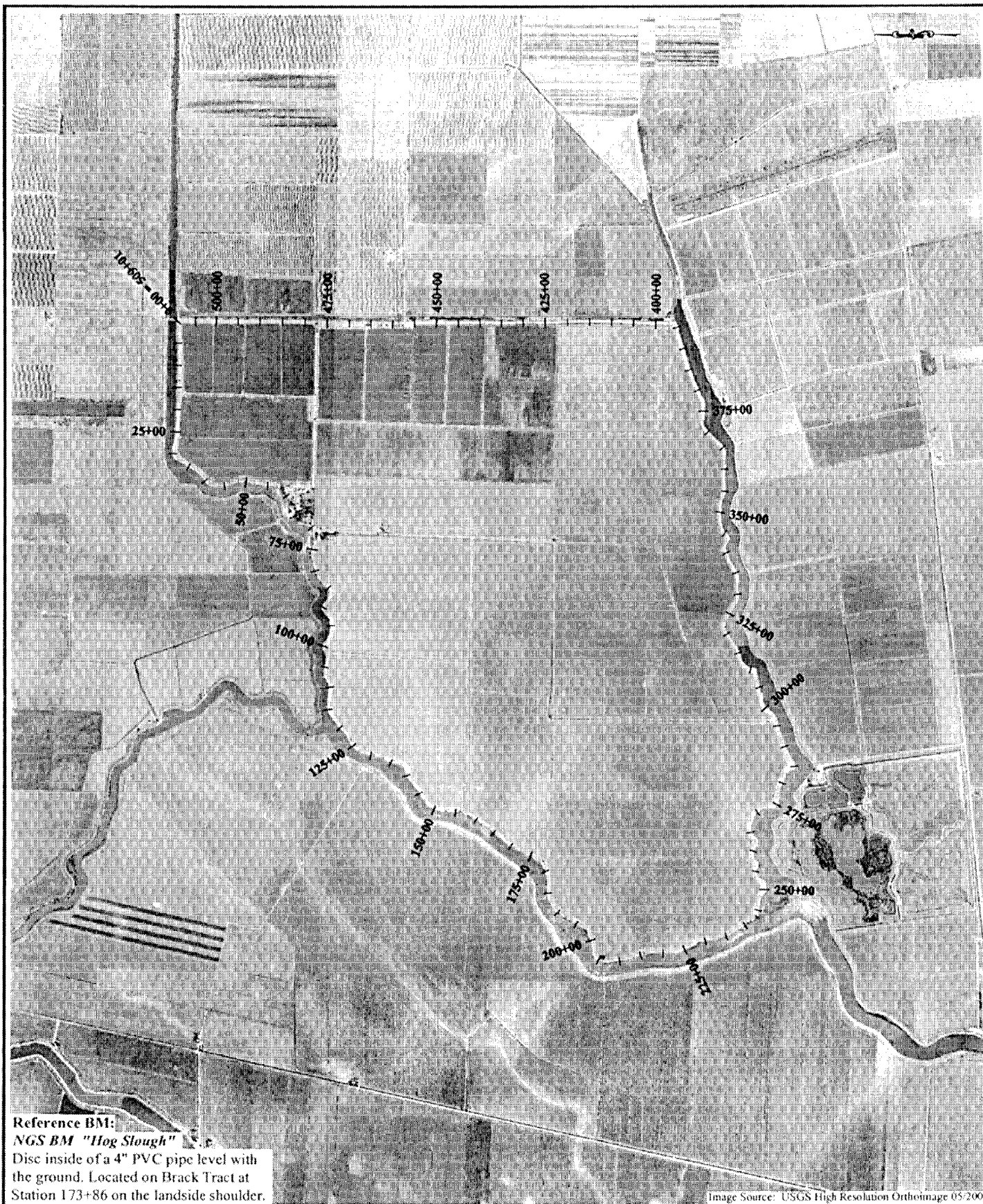
Reclamation District No. 2086 - Canal Ranch

## VICINITY MAP

SCALE: 1" = 1 mile  
JOB NUMBER: 4585-01  
DRAWN BY: TDR  
DATE: October 2003

Bar Length On Original Drawing Equals  
One Inch. Adjust Scale Accordingly.

SHEET  
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SHEETS



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Reclamation District No. 2086 - Canal Ranch

## DISTRICT AERIAL MAP

SCALE: 1" = 500'  
 KID NUMBER: 4585.00  
 DRAWN BY: TLR  
 DATE: September 2005

Do Not Enlarge Original Drawing (quadrant)  
 One inch Adjust Scale Accordingly

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